

Title (en)

Opto-mechanical position finder method and apparatus

Title (de)

Optomechanisches Positionserfassungsverfahren und Vorrichtung

Title (fr)

Procédé de chercheur de position opto-mécanique et appareil

Publication

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Application

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Abstract (en)

[origin: WO2007032681A1] An apparatus and method for finding part position relations of parts of mechanical and opto-mechanical machining and quality control systems, and for recognizing these parts, is disclosed. The present invention relies on optical contactless sensing technology, with recording of optical fiducial patterns and therefrom determining positions close to the work positions without physical contact. Part positions of machines are determined by associating or mechanically integrating fiducial patterns (1) with key parts, and optically detecting the images of these patterns. Part positions and displacements according to given part position finder (6) strategies are found, by associating fiducial pattern images (14) and machine position data (17) to parts that are members of a part geometry relation (15), and under part displacement constraints (16), finding given part positions or displacements (18). Using fiducial patterns (1), identification and recognition of work pieces, work holders, work tools, gauge tools, and machine parts in general is enabled.

IPC 8 full level

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